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EXAMINER	
SCIACCA, SCOTT M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/016,935	HOLDSWORTH, SIMON A. J.	
	Examiner	Art Unit	
	Scott M. Sciacca	2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is responsive to communications filed on January 26, 2010. Claims 1-14 and 16 are pending in the application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 10-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owens et al. (US 6,633,630) in view of Narasimhan et al. (US 6,073,165) and Deen et al. (US 6,999,992).

Regarding claims **1, 14 and 16,** Owens taught a system for providing a publish/subscribe service for publisher and application programs, comprising:

a receiver configured to publish messages from one or more publisher application programs **(abstract, figs. 1-3, column 7 lines 4-11, column 7 lines 11-24 and 55-62; and column 8 lines 29-31)**;

a transmitter configured to forward received messages to connected message brokering systems **(column 7 lines 24-29 and column 8 lines 32-42)**;

a selection module configured to select a message filtering policy which is appropriate for the communication characteristic (i.e. if the incoming message is an

email, then convert the email to a fax, and send it to the CompuServe mailbox; receive a fax/voice communication, transmit a notification to the other mailbox; "the options available to a sender depend on the *communication mode and services offered by the provider")* **(fig. 3, column 8 lines 34-36, fig. 5, 6 and 8; and column 10 lines 5-8, 24-56)**; and

a filter module configured to control the forwarding of messages via the inter-broker communication link using the selected message filtering policy **(column 10 line 57 to column 11 line 21)**.

Owens did not expressively teach details regarding selecting a message filtering policy based on a communication characteristic of a link between brokering systems. IN analogous art (i.e. message communication in computer networks), Narasimhan discloses another message brokering system which discloses selecting a policy, based on the communication characteristic of the network (i.e. if server A is down, then go down the list of user defined available servers until an appropriate server is found which can route the message to the user**) (col. 4, lines 30-63; col. 5, lines 25-30; col. 7, lines 1-15)**. It would have been obvious to one of ordinary skill in the art to combine the teaching of Owens with Narasimhan in order to incorporate a backup service to the system of Owens, thereby providing redundancy by using alternate source servers (i.e. the Premiere service of Owens), mirrored databases, and alternate destination servers (i.e. the CompuServe service of Owens) as supported by Narasimhan **(col. 6, line 65 to col. 7, line 14)**. This would provide an ability for the users of the system of Owens to receive their messages via their respective systems even though the CompuServe

server is down or a message is unreachable via the particular network or link, thereby ensuring that a message gets routed appropriately to the user.

Owens/Narasimhan did not expressively teach that a communication characteristic of an inter-broker communication link effective to communicate messages (emphasis added) is used for selecting a message filtering policy. The communication characteristic taught in Narasimhan is related to whether or not a server is available (See page 12, lines 5-9 of the Decision on Appeal dated May 17, 2009). Thus, in the case that a communication link with server A is unavailable the communication link is not effective to communicate messages (i.e., the communication link doesn't work). Deen taught that a communication characteristic of an inter-broker communication link effective to communicate messages is used for selecting a message filtering policy **(column 3, lines 17-25)**. In Deen the characteristic in question is not whether a link is available, but a measure of redundant message transmissions over communication links that are, in fact, effective to communicate messages. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify the methods/systems of Owens combined with Narasimhan, with the teachings of Deen. Owens motivated the exploration of the art of selecting filtering policies **(column 8 lines 29-31)**. The combination of Owens with Narasimhan would have been improved with the teachings of Deen to avoid wasting network bandwidth by forwarding redundant messages (see Deen **column 2 lines 15-17**).

Regarding claim **2**, Owens taught a system wherein the communication characteristic used to select a message filtering policy is a communication protocol provided by the communication link **(column 8, lines 39-42)**. Although Owens is not expressively evaluating the link characteristics it is clear that the system is performing a conversion depending on selected options and based on the expected communication medium. Owens also taught the use of different inbound and outbound communication types (inherently using different protocols) **(figs. 2-3 and 6-15)**. Narasimhan taught the provision of transmission services configurable to use either SMTP or POP **(column 3 lines 10-20)**.

Regarding claim **3**, Narasimhan taught a system further comprising a link module configured to establish the inter-broker communication link and define the communication characteristic for the communication link **(column 3 lines 15-20)**. It is well known in the art that mail client configuration, such as those described by Narasimhan, include definitions of the communication link such as IP address or server name and authentication information.

Owens taught comparing the communication characteristic with a list of administrator-defined associations between communication characteristics and message filtering policies, to select a message filtering policy for the communication link; and storing an identification of the selected message filtering policy in association with the communication link **(column 8 lines 39-42)**. In Owens disclosures the

association of the policies or options is (inherently) stored first as defined by the receiver, and applied to messages depending on the communication medium.

Regarding claim **4**, Narasimhan taught a system wherein the communication characteristic used to select a message filtering policy includes a dynamic communication characteristic **(column 7 lines 13-15)**.

Regarding claim **6**, Deen taught a system wherein the communication characteristic used to select a message forwarding policy includes a measure of redundant message transmissions **(column 3, lines 17-25)**.

Regarding claim **10,** Owens taught a system wherein the selection of a message filtering policy is specific to a selected message topic or topic group **(figs. 8 and 16; and column 11 lines 62-67)**. Note it is well known in the art that the words in the subject of an email message represent the main topic of the message.

Regarding claim **11**, Owens further taught at least a first and a second message broker **(figs. 1, 14 and 16 and column 7 lines 24-31)**, connected via one or more inter-broker communication links **(fig. 1 [18], and column 7 lines 55-62)** and configured to provide a publish/subscribe service for publisher and subscriber application programs **(fig. 1 [20] and [24])**.

Regarding claims **12 and 13**, Owens taught a system wherein said means for selecting a message filtering policy is adapted to select one of a plurality of different policies in response to characteristics of received message further defining such characteristic as a topic identifier within a received message ("subject keyword") **(fig. 8 column 11 lines 63-67)**.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Owens et al. (US 6,633,630) in view of Narasimhan et al. (US 6,073,165) and Deen et al. (US 6,999,992) and further in view of Khan et al. (US 2002/0143951).

Regarding claim **5**, the combination of Owens, Narasimhan and Deen taught the invention substantially as claimed. However the combination of Owens, Narasimhan and Deen did not expressively teach that the communication characteristic used to select a message filtering policy includes a measure of subscription activity.

Khan taught a system wherein the communication characteristic used to select a message forwarding policy includes a measure of subscription activity (see Khan **[0033]**). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify the methods/systems of Owens combined with Narasimhan and Deen with the teachings of Khan. Owens motivated the exploration of the art of selecting filtering policies **(column 8 lines 29-31)**. Khan motivated the exploration of the art of multicasting and unicasting in paragraphs **0002, 0003, 0005 and 0007**. The combination of Owens, Narasimhan and Deen would have been

improved with the teachings of Khan to enable the provision of message distribution considering active subscriptions (see Khan **[0033]**).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Owens et al. (US 6,633,630) in view of Narasimhan et al. (US 6,073,165) and Deen et al. (US 6,999,992) and further in view of Delaney et al. (US 2001/0027479).

Regarding claim **7**, the combination of Owens, Narasimhan and Deen taught the invention substantially as claimed. However the combination of Owens, Narasimhan and Deen did not expressively taught means for controlling includes means for implementing a broadcast messaging policy and means for implementing a proxy-subscription-based message filtering policy, a respective one of said means for implementing being activated in response to said selection of a message filtering policy.

Delaney taught a system wherein a preferred implementation in which broadcast and multicast (a variation of broadcast to subscribed or selected receivers) is used, more preferably, the decision to select multicast or broadcast is made according configuration set by the network administrator (see Delaney **[0047]**).

It would have been obvious to one of ordinary skills in the art at the time the invention was made to further modify the combination of Owens, Narasimhan and Deen with the teachings of Delaney. Delaney motivated the exploration of the art of message transmission (see Delaney **[0002]**). The invention taught by the combination Owens, Narasimhan and Deen would have been improved with the teachings of Delaney by

providing a system that selectively determines whether to broadcast or selectively send a message to neighboring brokers or final recipients.

5. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owens et al. (US 6,633,630) in view of Narasimhan et al. (US 6,073,165) and Deen et al. (US 6,999,992), further in view of Delaney et al. (US 2001/0027479) and further in view of Khan et al. (US 2002/0143951).

The combination of Owens, Narasimhan, Deen and Delaney taught the invention substantially as claimed, however this combination did not expressively teach a system wherein said means for implementing a proxy-subscription-based messaging policy comprises: means for receiving subscription information for connected message brokering systems and for storing said subscription information for comparison with received published messages; means for forwarding to connected message brokering systems subscription information for subscriber application programs connected the message brokering system and wherein the broadcast messaging policy is implemented for links which provide a non-transactional messaging protocol and the proxy-subscription-based message filtering policy is implemented for links which provide transactional messaging protocol.

Regarding claim **8**, Khan taught means for receiving subscription information for connected brokering systems and storing such information for comparison with

published messages **[0029, 0030, 0031]** ("...the source server on receipt of the "unicast join" message..."). Khan further taught forwarding subscription information to a connected message brokering system **[0030]** ("... the source server forward the client's "unicast join" message to the designated agent...").

Regarding claim **9**, Khan taught the use of IP addresses known to support transmission confirmation for assuring transmission completeness or delivery assurance required in some application **[0027]**.

Delaney taught selectively selecting either IP multicast or broadcast according to the configuration set by the network administrator **[0047]**.

Owens taught inter-broker exchange of billing information **(fig. 3)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify the methods/systems of Owens combined with Narasimhan, Deen and Delaney, with the teachings of Khan. Owens motivated the exploration of the art of selecting filtering policies **(column 8 lines 29-31)**. Khan motivated the exploration of the art of inter-server communication ("...by the source server to a multicast enabled server computer...") **[0025]**. The combined method/system of Owens, Narasimhan, Deen and Delaney would have been improved with the teachings of Khan to enable the receiving, storing and forwarding of

subscription information in an inter-server communication environment (see Khan **[0029-0033]**) and selectively utilizing delivery assurance capabilities typically found in TCP/IP communication protocol (see Khan **[0024]**) such as CRC, further implementing such functionality distinctively for broadcasting or multicasting messages according to predetermined configuration (see Delaney **[0027]**) in links where delivery assurance is important, for example for properly billing a client (see Owens **fig. 3**).

Response to Arguments

6. Applicant's arguments filed on January 26, 2010 have been fully considered but they are not persuasive. On page 6, of the remarks, Applicant argues with respect to Claim 1 "Additionally, the claimed invention is directed to selecting a message filtering policy. Narasimhan does not 'select' a policy based upon a particular communication characteristic. Instead, Narasimhan uses a message routing policy. A filtering policy describes what messages are to be sent (or not sent). Unlike a message filtering policy, a message routing policy describes where messages are to be sent."

These arguments are drawn to grounds of rejection that were affirmed at the BPAI on March 17, 2009 and reaffirmed on June 16, 2009. In view of the Board's decision, the Examiner still considers Narasimhan to disclose the selecting of a message filtering policy based upon a communication characteristic.

7. On page 7 of the remarks, Applicant argues in substance that Hurst does not teach that a communication characteristic of a communication link effective to

communicate messages is used for selecting a message filtering policy. Applicant's arguments with respect to the rejection of Claim 1 under 35 U.S.C. 103(a) as being unpatentable over Owens in view of Narasimhan and Hurst have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of Owens in view of Narasimhan and Deen. In the portions of Deen above with respect to Claim 1, Deen explicitly describes message filtering with respect to a communication characteristic of a communication link effective to communicate messages.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Sciacca whose telephone number is (571) 270-1919. The examiner can normally be reached on Monday thru Friday, 7:30 A.M. - 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott M. Sciacca/
Examiner, Art Unit 2446

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446